

From: [Coltrain, Katrina](#)
To: [Todd Downham](#)
Subject: Wilcox Source Control Proposed Plan-information for Discussion
Date: Friday, April 6, 2018 3:01:00 PM
Attachments: [wilcox source control draft Proposed Plan text 4-6-18.docx](#)
[FS screening cost and volume information 4-6-18.xlsx](#)
[Interim Action-Excavate-Treat-Cap 4-5-18 Summary.pdf](#)
[Interim Action-Excavate-Treat-Cap 4-4-18 Cost over time.pdf](#)
[Interim Action-Excavate-Treat-Cap 4-4-18 Tech Detail.pdf](#)
[Interim Action-Excavate-Treat-cap 4-5-18 Markup.pdf](#)
[Interim Action-Excavate-Treat-offsite 4-5-18 Tech Detail.pdf](#)
[Interim Action-Excavate-Treat-Offsite 4-5-18 Cost over time.pdf](#)
[Interim Action-Excavate-Treat-offsite 4-5-18 Markup.pdf](#)
[Interim Action-Excavate-Treat-offsite 4-5-18 Summary.pdf](#)
[RACER markup calculation explanation 4-5-18.pdf](#)

Todd, here is some additional information to assist with our discussions on Monday. Share with your team.

I am currently discussing the principal threat waste comment and the proposed change to 800mg/kg lead with headquarters.

Draft Text Revision: word document Green is added language based on the lead data. Red is still being discussed.

Excel File: Remedial Options: summary of the components of the evaluated remedial options and the estimated final cost.

Excel File: Cost Averages

- Lists the technologies reviewed and provides a comparison of the RACER cost to that from the 2 guidance documents: Screening Matrix and Presumptive Remedy
- At the bottom, is a list of those screened from further review.

Excel File: Cost Matrix Comparison: list of potential remedy combinations and summary of total estimated costs.

Excel file: Volumes

- Lists the areas identified in the proposed plan
- Provides the estimates related to each area used to determine volume.
- The lateral extent primarily determined by the soil boings (RI and ERT) and the vertical extent primarily determined by the LIF data (ERT report). When removal performed the Tank 5 removal, the LIF and Borings matched closely.
- Where there was no LIF, I assumed that the tank area is similar to other tank areas and estimated a depth of 5 ft.
- The lead area is estimated using 2ft depth and a target of 800mg/kg.

Pdf Attachments: cost were adjusted to include treatment, remove the contingency, and estimate all areas will be addressed at the same time (vs previous that estimated individual areas)

Capping: Summary, Technology Details (shows the components of the technology), cost over time (5yr reviews and administrative costs), explanation of markup costs

Excavation/Offsite: Summary, Technology Details (shows the components of the technology), cost over time (5yr reviews and administrative costs), explanation of markup costs

Markup Explanation from RACER:

Markup percentages are applied at the Phase (Level 3). If you do not select a markup template at Phase level, the System Default Markups will be applied to the phase. For more information about how markups are calculated in the phase, see attached pdf.

The System Default Markups were developed using remediation and general construction industry data obtained from various educational institutions, professional societies and associations, subject-matter experts, commercial organizations, and government agencies. The

data was reviewed by a group consisting of representatives from private industry, the Air Force, the Army Corps of Engineers, and the Department of Energy.

RACER

The Remedial Action Cost Engineering and Requirements (RACER®) System, Version 11.2.16.0 was used to estimate costs and assist with the comparison of alternatives relative to cost. RACER® is a program originally developed by the U.S. Air Force. The program is a parametric cost estimating tool specifically developed for environmental remediation and restoration projects. These estimates are based on current site data and characteristics related to the tank waste and the lead additive area.

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